

Architecting a Social Media based e-Learning Environment for Primary Education of Underprivileged Children by Senior Citizens of India

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Extended Abstract

Introduction: India has undergone significant educational expansion in recent years with regard to physical infrastructure of schools and enrolment of students, both at the primary and upper primary levels of education. However, the dropout rates at rural areas are still high at 40% and 57% respectively at the primary and elementary level of education (Jean, 2002; Kumar, 2010). Children from rural schools often drop out due to several factors like an unattractive classroom environment, teacher absenteeism, poor quality of teaching due to non-availability of good teachers at remote areas, and a stagnant daily routine. Further, despite aggregate improvements in education levels, glaring inequalities in basic education continue to persist. Disparities between regions (states) and across gender, caste, class, religious groups; and other marginalized sections of society continue to present the biggest challenge for policy makers and educationists (Dreze, Sen, 2002). Hence India lags behind substantially with regards to learning achievements at the primary level. In this context, our work wishes to provide a replicable and scalable model where internet-enabled social media based pervasive environments for education can be architected to facilitate primary education for underprivileged children in all parts of India by the educated senior citizens, who are capable but otherwise not involved in any mainstream productive activities.

Web 2.0 and Knowledge Management (KM): There has been a general consensus among practitioners and academicians that integration of ICTs in education has a positive impact on the learning environment and can reach out to a greater number of students, including those to whom education was previously not easily accessible. However, ICT based education in India has only been concentrated on higher and continuing education and little or no importance are given to the primary level of education. Moreover, the proper means for implementing an ICT-backed educational model has not been developed, with undue attention being paid simply on the process of setting up ICT labs (Infodev, 2010).

The notion of “KM 2.0” is a natural consequence of “Web 2.0” that describes a collection of IT applications called social software (Firestone, 2008). Social Media based Virtual communities can facilitate learning by allowing for prolonged interaction between the provider of the education and the recipient of the education. A strong and resilient community needs digital connectedness that is often influenced by society and social dynamics. Emile Durkheim’s approach of ‘social cohesion’ and ‘integration’ to maintain social relationships demand digital inclusion in post-modern era.

Role of senior citizens as online mentors and tutors for school children: Importance of elderly wisdom is best understood within indigenous context of learning and knowledge acquisition. Indigenous elder knowledge sharing traditions have the potential to inform and address some of the mentoring and knowledge transfer needs within a community (Thomas, 2004). In our context, elderly citizens can use their knowledge, wisdom and experience for imparting education for school children using social web (Granny 2011). A

Social Media Platform using Web 2.0 technology can play important role in acting as a medium of communication between the two generations (Laszlo, 2006; Bandyopadhyay, 2013). Thus, in order to create a web-based learning environment for all through social media, we have developed Owlsh Oracle, a targeted social networking platform through which elderly people will provide tutoring and grandparenting online for rural school children. OwlshOracle provides the following services:

- Online Tutoring for children by elderly
- Online Grandparenting for children by elderly
- Tutoring for the under privileged children
- Social networking between elderly and children
- Social networking between elderly

This online platform uses elderly friendly interface that would be helpful for the elderly and would include live interactive webcasts, and interactions between children and elderly constantly. Such a social media platform would not only facilitate learning but also facilitate connecting generations.

Empirical Study of Remote teaching: A pilot intervention of remote teaching has been done in a tribal school named Ma Sharada Shishu Tirtha at Krishnanagar where 32 tribal girl students of 6 to 8 years of age (class 1), were taught English (using PowerPoint Presentations shown during the video conference through Google Plus) by educators from urban areas of Kolkata. The sessions were very interactive and vibrant. The findings of the above study posits that remote teaching as an alternative model is successful as it not only provides quality material, and teacher support, but also removes social distance that often alienates disadvantaged groups (Fig. 1 and 2).

Conclusion: The internet-based social media platform using web 2.0 technology has the potential to disseminate knowledge both formal and informal to all parts of the world. Quality of teacher can be enhanced by proper training to experienced elderly. Learning can be friendlier, interactive and communicative in the presence of social media based web2.0 technology.

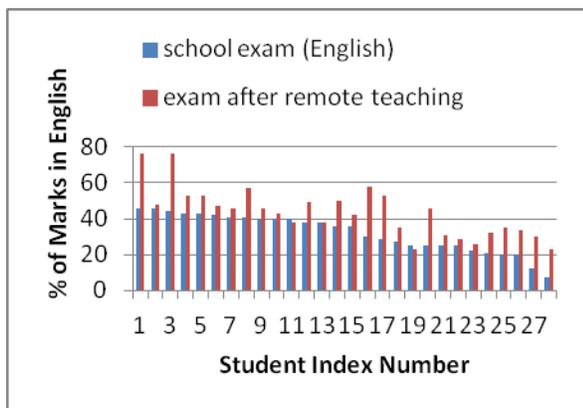


Fig. 1. Performance Improvement of Class-I Students after ICT-enabled Remote English Teaching



Fig. 2 Children Being Taught Remotely

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